COMMUNICATING THE MESSAGE

IN THIS CHAPTER

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1. Communicating the Threat of Antibiotic Resistance

Communication techniques, improved by the growth of electronic technology, provide new opportunities and challenges for the effective translation of surveillance data into public health information conveyed in a way that is understood and accepted as credible by the targeted audience. The emergence of new resistant strains and the development of effective vaccines are only two examples of how increased emphasis on prevention have expanded the need to recognize the role of communications as an integral component of a coordinated public health response to antibiotic resistance in the community. An effectively crafted and disseminated prevention message is the key control measure and potentially increases the effectiveness of the message and improves public health (1).

2. What is Health Communications?

Health Communication has been defined as the study and use of methods to inform and influence individual and community decisions that enhance health (2). Communication methods are used to create and increase public awareness of a disease; educate the public about a disease, its causes, and treatment; change a person's or group's attitudes about a disease; change individual behavior to prevent or control; advocate for policy changes in favor of disease prevention and control; and create social norms that favor healthful living (3). Antibiotic resistance awareness campaigns, like other health communication programs, identify and prioritize audience segments; deliver accurate, scientifically-based information from credible sources; and reach audiences through familiar channels. The method of health communications includes four major components: defined audience, the message, the source, and the channel. Health department staff planning communication programs must carefully consider each component to effectively plan a successful messaging campaign.

Audience The segment of the population for which the message is intended. Greater understanding of the audience improves the chance of developing an effective message.	**Message** Effective messages are crafted in a clear, simple, positive manner. They are both emotional and rational. If they evoke fear, they also present a solution to abate the fear.
Source The source influences the effectiveness of the message. A source perceived as credible by one audience segment may be inappropriate (due to its perception as not credible) by another segment of the audience.	**Channel** The channel is the means by which a message is sent. Selection of channel is as important as selecting the message. Utilizing a combination of multi-channels is an effective strategy in reaching a target audience.

3. Health Communication Theories

A review in health communication theories far surpasses the scope of this chapter; however, it should be noted that successful health communication messages are rooted in theory. An understanding of health communication theories assists professionals to develop, deliver, and evaluate health promotion and disease prevention programs and campaigns; to disseminate health information; and to develop, formulate and implement health policy initiatives. In this section, we will discuss four major theories of health communications and their common applications. (3)

Prochaska's Stages of Change: Suggests behavior changes slowly, through a sequence of stages: precontemplation, contemplation, preparation, action, and maintenance. This theory is often used on the individual or intrapersonal level.

The Health Belief Model: This model addresses one's perception of personal risk for the disease and the behavior change recommended for decreasing the risk. Key variables in this theory include one's perceptions of the severity and susceptibility of the health threat, the benefits from adhering to recommended behavior or actions; the obstacles to ensuing recommended behaviors; cues and motivations to prompt recommended behaviors; and the level of self-efficacy (personal confidence) in one's ability to take action. This theory is often applied at the individual level

Social Cognitive Theory: The central theme of this theory is that family members and others closely associated to an individual can influence a person's health behavior. One learns about healthful behaviors by observing the actions and decisions of others and by witnessing the consequences of these actions and decisions of others. This theory is often used at the interactive level.

Diffusion of Innovations Theory: This theory states that new ideas, products, and social practices follow a pattern as they spread within a population. Key variables to consider are characteristics of the innovation, communication channels and social systems. This theory is often applied at the community-level.

4. Crafting the Message

To ensure the surveillance information is translated into content easily understood by the layperson, professionals should rely upon communication techniques that convey the basic purpose of the message and prompt the intended response. There are a variety of basic purposes for health communications messages:

1. To detect and control outbreaks
2. To determine the etiology and natural history of disease
3. To evaluate control measures
4. To detect changes in disease agents
5. To detect changes in health practices
6. To facilitate planning of health policies

Once the reason for the development of the communication message is established, the audience is defined, the channel is selected, and the source is identified, it is crucial to ensure the message is received and understood by the intended audience and not simply disseminated. Often a perfectly crafted message misses the mark because the planner failed to consider social or cultural characteristics of the intended audience. There are numerous tools that facilitate marketing the message more effectively: graphic formats, visual displays, appropriate cultural or ethnic representation, and use of second, non-English language are just a few examples. These tools assist to capture the intended audience's attention. Recognition of the key components and characteristics of the intended audience improves the acceptability, understanding and response to the health communication message and assists to strengthen the relationship between using public health data to motivate positive personal health decisions and actions.

Although each purpose presented is relevant to DRSP surveillance, most health communication messages communicate strategies for prevention and control. As the rate of multi-drug resistant strains of *S. pneumoniae* have increased, prevention and control measures have become increasingly more important.

5. Pre-Testing the Message

Regardless of a message's theory, channel or source, the only way to determine if the audience receives and understands the intended message is to pretest it with a representative sample of the target audience. For DRSP surveillance programs, evaluation efforts should address two considerations: 1) whether surveillance information

has been communicated to those who need to know; and 2) whether the information has had a beneficial effect upon the public health problem (4). Evaluation is critical to ensuring the full process of the communication loop is being achieved; versus conducting simply a one-way communication flow. Focus groups, personal interviews, and other evaluation techniques are useful and not necessarily costly techniques that may be employed to evaluate the effectiveness of communication techniques.

An example of the benefits in utilizing an evaluative tool to test the message was found in a study that explored the causes of misuse of antibiotics in pediatric practices. Researchers used focus groups to examine the issue and found that physicians felt increased pressure from parents to prescribe antibiotics at every office visit. However, parents in the focus group expressed they would not insist on antibiotics if the reasons for not prescribing the drugs were explained to them (5). Health communication efforts to narrow this communication gap would potentially reduce the high demand and unnecessary use of antibiotics and perhaps lead to decreasing the emergence of resistant strains of *S. pneumoniae* and other bacterial pathogens.

6. State Strategies in Sharing the Message with Partners

A prudent measure in utilizing available communication resources and established channels of information is to attempt to partner with related professional organizations and share the message. With health departments continuing to face fiscal challenges, more and more program managers are identifying creative and productive partnership opportunities with various agencies. On a national level, there are numerous state-level

programs that are successfully developing partnerships with professional agencies and public health associations to increase their efforts to disseminate antibiotic resistance information. The two state models below were presented at the 2003 Drug-Resistant *Streptococcus pneumoniae* and Methicillin-Resistant *Staphylococcus aureus* Surveillance Conference, held March 12-13, 2003 in Atlanta, Georgia. (See conference summary notes posted under "events" at this web site.)

Arizona's Strategies in Communicating Results with Partners

Arizona's antibiotic resistance surveillance and prevention program, Strike Out Antibiotic Resistance, is designed to monitor bacterial infections that are resistant to antibiotics and provide education about appropriate use of antibiotics to healthcare providers and the public. The program collaborates with professional medical societies, community-based organizations, and pharmaceutical companies to coordinate and provide professional education through the State of Arizona Group on Understanding Antibiotic Resistant Organisms (SAGUARO) coalition. Additional partners include the Arizona Diamondbacks, managed-care plans, tribal health systems, hospitals and health systems, and laboratories.

Two essential partners are the Association for Professionals in Infection Control and Epidemiology (APIC) and the pharmaceutical industry. The Arizona state epidemiologist maintains her relationship with the local APIC chapter by providing updates at their meetings, assisting with mailings, speaking and exhibiting at their conferences, and sending alerts and information via email. Pharmaceutical companies help distribute

guidelines and educational materials to providers' offices, support conferences, and provide NCCLS standards to all hospitals.

Additional strategies include: having the Governor proclaim an Antibiotic Resistance Month; exhibiting at conferences of professional organizations (e.g., American Academy of Pediatrics, Arizona Osteopathic Medicine Association, Arizona Academy of Family Physicians); posting antibiogram data on the health department's website; participating in grand rounds; submitting articles to professional publications; convening conferences featuring local experts; holding a poster contest for the campaign; and airing public service announcements at professional baseball games.

Los Angeles County's Strategies in Communicating Results with Partners

Given the challenges associated with the size and ethnic diversity of the population of Los Angeles County, the size of the health department, and its severe fiscal deficits, Los Angeles County Department of Health Services has had to be imaginative in using resources in the health department to disseminate messages about antibiotic resistance. In July 2000, the health department initiated the Countywide Los Angeles Antibiotic Resistance Education Advocates (LA AREA) with a grant from CDC for a senior health educator to develop a patient education program on antibiotic resistance.

Activities that were conducted by LA County included:

- Features in health department publications (monthly newsletter to physicians, quarterly health magazine for clinics/schools/libraries, county retirement bulletin)
- Updates on the health department's website

- Press releases and media collaborations
- Periodic email updates to members of the Infectious Disease Association of California, infection control practitioners, and Los Angeles County physicians
- Outreach to health department providers (e.g., maternal and child health, public health nursing)
- Outreach to other partners (e.g., California Alliance for Appropriate Antibiotic Use [AWARE], PTA, Head Start, Los Angeles County Medicaid program, Binational Border Health)

With limited resources, existing surveillance officers identified opportunities to partner with other health department branches (i.e., Division of Women and Children's Health) to circulate messages in related health department publications. This partnership proved to serve LA County well by efficiently and cost-effectively utilizing established communication channels that increased dissemination of antibiotic resistance messages.

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